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EXAMINER	
HUSSAIN, FARRUKH	
ART UNIT	**PAPER NUMBER**
2444	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/593,314	LU ET AL.	
	Examiner	Art Unit	
	FARRUKH HUSSAIN	2444	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 July 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in regards to the response received on 07/27/2010. Claim 1-4 have been amended. Claim 19 is added. Claims 1-19 are pending.

Response to Arguments

2. Applicant's arguments filed 07/27/2010 have been fully considered but they are not persuasive.

Point A. With regards to the Rejection under 35 USC § 103 (a), the applicants argue that The combination of Lewis, Jain, and Owens fails to render obvious claims 1-18 because the combination of Lewis, Jain, and Owens fails to disclose a message that comprises label binding information comprising an identifier of the work label switching path (LSP), a type of the LSP, and a protection mode.

As to Point A, the Examiner respectfully disagrees. The combination of Lewis, Jain, and Owens does disclose a message that comprises label binding information comprising an identifier of the work label switching path (LSP) (*See Owens, column 11, lines 1-12 A Protection Domain Path is established by the identification of a protection switch (work LSP) or node and an end point switch or node in the MPLS network.)*, a type of the LSP (*See Owens, column 6, lines 33-43 the format of a liveness message will depend upon the type of switching systems (LSP) used in the network)*, and a protection mode (*See Owens, column 11, lines 1-12 for maintaining a binding between outgoing labels (two LSPs)*

specifying the working path (work LSP) and the protection/recovery path (protection mode).

Point B. With regards to the Rejection under 35 USC § 103 (a), the applicants argue that Jain's fault notification message does not contain any label binding information,

As to Point B, the Examiner agrees that Jain's fault notification message does not contain any label binding information, However, Owen teaches maintaining a **binding** between outgoing labels specifying the working path and the protection/recovery path (*See Owens, column 11, lines 1-12 for maintaining a binding between outgoing labels (two LSPs) specifying the working path (work LSP) and the protection/recovery path (protection LSP). The latter enables the switchover to the recovery path upon the receipt of a protection switch trigger*) and exchanging label binding information (*See column 11, lines 12-31 with respect to the binding information they exchange*).

Point C. With regards to the Rejection under 35 USC § 103 (a), the applicants argue that Jain's fault notification message fails to contain any information identifying the type of LSP or the protection mode.

As to Point C, the Examiner respectfully disagrees. Jain's fault notification message does contain information identifying the type of LSP or the protection mode (*See paragraph 0003, lines 1-4 the invention relates to fault notification in a label-switching (LSP) data communication network and see paragraph 0052, lines 1-10 uses the type information to extract a destination key (e.g., a label*

switch path to the destination node or other destination indicator) from the packet.).

Point D. With regards to the Rejection under 35 USC § 103 (a), the applicants argue that Jain does not disclose that the fault notification message is sent from the PSL to the PML.

As to Point D, the Examiner respectfully disagrees. Jain does disclose that the fault notification message is sent from the PSL to the PML (*See paragraph 0003, lines 1-4 the invention relates to fault notification in a label-switching data communication network (the examiner would like to state that a label switched data communication includes PSL and PML)).*

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis (US 2004/0004955 A1), in view of Jain (US 2002/0116669 A1) and Owens et al. (Owens) (US 7,315,510 B1).

4. With respect to the claim 1, Lewis reference teaches A method for binding a work label switching path (LSP) with a protection LSP, comprising:

a Path Switching Label Switching Router (PSL) transmitting a first message which comprises information to a Path Merging Label Switching Router (PML) to request for creating the LSP of the work LSP (*See paragraph 0007, lines 1-9 sending a first LSP setup request message comprising a first bi-directional indicator from the first routing device (Path Switching Label Switching Router (PSL)) to the second routing device (Path Merging Label Switching Router (PML) and* see *paragraph 0041, lines 1-7 generate (process) the one or messages necessary to create the return (protection) LSP)*), and returning a second message which comprises the information (*See paragraph 0007, lines 9-17 sending a second LSP setup request message from the second routing device to the first routing device in response to the first bi-direction indicator*);

upon receiving the second message, the PSL router the work LSP with the LSP according to the information, and transmitting a notification message which comprises the information to the PML switched router (*See paragraph 0044, lines 8-14 transit router 108 returns an error notification to the LER*);

wherein the PSL and PML are label edge routers (*See paragraph 0003, lines 1-8 An MPLS Label Switched Path (LSP) is a uni-directional "tunnel" originating at one label edge router (LER),*).

Lewis fails to explicitly teach binding information to a Path Merging Label Switching Router (PML) to request for creating the protection LSP of the work LSP;

However, Jain reference teaches teach the PML router assigning a label for the protection LSP based on the first message (*See Jain, paragraph 0005*

lines 1-10 The router (PML) then modifies (assign) the packet by exchanging the outgoing label for the prior label before forwarding the packet along this next hop and See paragraph 0083, lines 1-8 the protection LSPs allow data to be re-routed), the PML router the work LSP with the protection LSP according to the information in the notification message (See paragraph 0007, lines 1-13 A fault notification is required for each LSP).

Therefore, it would have obvious to a person of ordinary skill in the art at the time of invention was made to have been combined the teachings of Jain to utilize the protection LSP feature within the transmitting a first message which comprises information to a Path Merging Label Switching Router taught by Lewis. The motivation for this would have been to avoid failed network nodes as well as failed network links (*See Jain, paragraph 0083, lines 1-8 the protection LSPs allow data to be re-routed).*

Lewis and Jain fail to explicitly teach returning a second message which comprises the **binding** information; upon receiving the second message, the PSL router binding the work LSP with the protection LSP according to the **binding** information, and transmitting a notification message which comprises the **binding** information to the PML switched router; and the PML router assigning a label for the protection LSP based on the first message, the PML router binding the work LSP with the protection LSP according to the **binding** information in the notification message.

<u>wherein the binding information comprises an identifier of the work LSP, a type of the LSP, and a protection mode,</u>

However, Owens reference teaches maintaining a **binding** between outgoing labels specifying the working path and the protection/recovery path (*See Owens, column 11, lines 1-12 for maintaining a binding between outgoing labels (two LSPs) specifying the working path (work LSP) and the protection/recovery path (protection LSP). The latter enables the switchover to the recovery path upon the receipt of a protection switch trigger*) and exchanging label binding information (*See column 11, lines 12-31 with respect to the binding information they exchange*).

wherein the binding information comprises an identifier of the work LSP (*See Owens, column 11, lines 1-12 A Protection Domain Path is established by the identification of a protection switch (work LSP) or node and an end point switch or node in the MPLS network.).*, a type of the LSP (*See Owens, column 6, lines 33-43 the format of a liveness message will depend upon the type of switching systems (LSP) used in the network).*, and a protection mode (*See Owens, column 11, lines 1-12 for maintaining a binding between outgoing labels (two LSPs) specifying the working path (work LSP) and the protection/recovery path (protection mode).*,

Therefore, it would have obvious to a person of ordinary skill in the art at the time of invention was made to have been combined the teachings of Owens to utilize the binding information they exchange feature within the transmitting a first message which comprises information to a Path Merging Label Switching Router taught by Lewis and Jain. The motivation for this would have been to

enables the switchover to the recovery path upon the receipt of a protection switch trigger (*See Owen, column 11, lines 1-11*)

5. With respect to the claim 2, Lewis, Jain and Owens further teach comprising: before creating the work LSP, designating the PML router and the protection mode of the work LSPs at the PSL switched router; or, after creating the work LSP, designating the PML router and the protection mode of the work LSPs at the PSL switched router (*Jain, See paragraph 0085, lines 1-9 one or more protection LSPs is defined and See paragraph 0013, lines 1-7 the particular router is using to send data, e.g., those resources being used by label-switched paths (LSPs) set up by that router*). The motivation that was utilized in claim 1, applies equally as well to claim 2.

6. With respect to the claim 3, Lewis reference teaches A method for binding a work label switching path (LSP) with a protection LSP, comprising:

in the process of creating the protection LSP (see *paragraph 0041, lines 1-7 generate (process) the one or messages necessary to create the return (protection) LSP*), a Path Switching Label Switching Router (PSL) transmitting a first message which comprises information to a Path Merging Label Switching Router (PML) to request for creating the LSP of the work LSP (*See paragraph 0007, lines 1-9 sending a first LSP setup request message comprising a first bi-directional indicator from the first routing device (Path Switching Label Switching Router (PSL)) to the second routing device (Path Merging Label Switching Router (PML) and* see *paragraph 0041, lines 1-7 generate (process) the one or messages necessary to create the return (protection) LSP)*), and returning a

second message which comprises the information (*See paragraph 0007, lines 9-17 sending a second LSP setup request message from the second routing device to the first routing device in response to the first bi-direction indicator*);

upon receiving the second message, the PSL router the work LSP with the LSP according to the information, and transmitting a notification message which comprises the information to the PML switched router (*See paragraph 0044, lines 8-14 transit router 108 returns an error notification to the LER*);

Lewis fails to explicitly teach binding information to a Path Merging Label Switching Router (PML) to request for creating the protection LSP of the work LSP;

However, Jain reference teaches teach the PML router assigning a label for the protection LSP based on the first message (*See paragraph 0005 lines 1-10 The router (PML) then modifies (assign) the packet by exchanging the outgoing label for the prior label before forwarding the packet along this next hop and See paragraph 0083, lines 1-8 the protection LSPs allow data to be re-routed), the PML router the work LSP with the protection LSP according to the information in the notification message (See paragraph 0007, lines 1-13 A fault notification is required for each LSP*).

Therefore, it would have obvious to a person of ordinary skill in the art at the time of invention was made to have been combined the teachings of Jain to utilize the protection LSP feature within the transmitting a first message which comprises information to a Path Merging Label Switching Router taught by Lewis. The motivation for this would have been to avoid failed network nodes as

well as failed network links (*See Jain, paragraph 0083, lines 1-8 the protection LSPs allow data to be re-routed).*

Lewis and Jain fail to explicitly teach returning a second message which comprises the **binding** information; upon receiving the second message, the PSL router binding the work LSP with the protection LSP according to the **binding** information, and transmitting a notification message which comprises the **binding** information to the PML switched router; and the PML router assigning a label for the protection LSP based on the first message, the PML router **binding** the work LSP with the protection LSP according to the **binding** information in the notification message.

However, Owens reference teaches maintaining a **binding** between outgoing labels specifying the working path and the protection/recovery path (*See Owens, column 11, lines 1-12 for maintaining a binding between outgoing labels (two LSPs) specifying the working path (work LSP) and the protection/recovery path (protection LSP). The latter enables the switchover to the recovery path upon the receipt of a protection switch trigger*) and exchanging label binding information (*See column 11, lines 12-31 with respect to the binding information they exchange*).

Therefore, it would have obvious to a person of ordinary skill in the art at the time of invention was made to have been combined the teachings of Owens to utilize the binding information they exchange feature within the transmitting a first message which comprises information to a Path Merging Label Switching Router taught by Lewis and Jain. The motivation for this would have been to

enables the switchover to the recovery path upon the receipt of a protection switch trigger (*See Owen, column 11, lines 1-11*)

Lewis, Jain and Owens further teach if the protection mode for the work LSPs is 1+1 mode, the binding information comprises the work LSP identifier, LSP type, and the protection mode (Jain, See paragraph 0106, lines 1-15 the protection provided may be 1:1, 1:n, 1+1, ring, or fast re-route and See paragraph 0021, lines 14-20 a label-switched path that uses a resource identified by the corresponding point of failure); if the protection mode for the work LSPs is 1:1, the binding information comprises the work LSP identifier, LSP type, the protection mode and selection mode of the return LSP in the 1:1 protection mode (*Jain, See paragraph 0106, lines 1-15 the protection provided may be 1:1, 1:n, 1+1, ring, or fast re-route and See paragraph 0021, lines 14-20 a label-switched path that uses a resource identified by the corresponding point of failure*). The motivation for this would have been to provide a higher level of fault tolerance than other 1:n levels. (Jain, See paragraph 0106, lines 1-15 the protection provided may be 1:1, 1:n, 1+1, ring, or fast re-route)

7. With respect to the claim 4, Lewis, Jain and Owens further teach comprising, after the PML router receives the notification message, if it is determined that the protection is in the 1:1 mode and it is chosen to create the return LSP dynamically via signaling (*Jain, See paragraph 0106, lines 1-15 the protection provided may be 1:1, 1:n, 1+1, ring, or fast re-route and See paragraph 0050, lines 1-6 signal integrity verification*):

the PML router transmitting to the PSL router a third message of requesting for creating the return LSP, with the binding information included in the third message (*Jain, See paragraph 0013, lines 1-7 the particular router is using to send data, e.g., those resources being used by label-switched paths (LSPs) set up by that router and See paragraph 0016, lines 1-8 The label used for a fault notification may be referred to as a "fault information label" (FIL).*);

the PSL router assigning a label for the return LSP according to the third message, and returning a fourth message which comprises the binding information (*Jain, See paragraph 0013, lines 1-7 the particular router is using to send data, e.g., those resources being used by label-switched paths (LSPs) set up by that router and See paragraph 0016, lines 1-8 The label used for a fault notification may be referred to as a "fault information label" (FIL).);*

the PML router binding the work LSP and the return LSP based on the binding information of the fourth message, and transmitting to the PSL router a notification message which comprises the binding information (Jain, See paragraph 0013, lines 1-7 the particular router is using to send data, e.g., those resources being used by label-switched paths (LSPs) set up by that router and See paragraph 0016, lines 1-8 The notification may include the SRLG that corresponds to the particular failure that occurred.);

the PSL router binding the work LSP and the return LSP based on the binding information of the notification message (*Jain, See paragraph 0013, lines 1-7 the particular router is using to send data, e.g., those resources being used by label-switched paths (LSPs) set up by that router and See paragraph 0016, lines 1-8*

The notification may include the SRLG that corresponds to the particular failure that occurred.). The motivation that was utilized in claim 3, applies equally as well to claim 4.

8. With respect to the claim 5, Lewis further teach wherein, if Resource Reservation Protocol (RSVP) is used to create the LSP, the first message and the third message are path messages in the RSVP, and the second message and the fourth message are Resv messages in the RSVP, and the notification message is Reservation Configuration (ResvConf) message in the RSVP (*See paragraph 0008, lines 1-9 the first and second LSP setup request messages are first and second RSVP PATH messages*).

9. With respect to the claim 6, Lewis further teach comprising: extending a binding object in the RSVP, and extending the Path message, Resv message and ResvConf message to comprise information of the binding object to implement the binding of the work LSP and the protection LSP (*See paragraph 0008, lines 1-9 the first and second LSP setup request messages are first and second RSVP PATH messages*).

10. With respect to the claim 7, Lewis further teach wherein, if label distribution protocol (LDP) or constraint route-label distribution protocol (CR-LDP) is used to create the LSP, the first message and the third message are the Label Request messages of the LDP or CR-LDP, and the second message and the fourth message are the Label mapping messages of the LDP or the CR-LDP, and the notification message is a notification message in the LDP or the CR-LDP (*See paragraph 0065, lines 1-12 LDP, for example, may be used*).

11. With respect to the claim 8, Lewis, Jain and Owens further teach comprising: extending the binding Type Length Value (TLV) in the LDP or the CR-LDP, and adding the binding TLV to the Label Request message, Label mapping message and notification message to implement the binding of the work LSP and the protection LSP (*Jain, See paragraph 0097, lines 1-24 a new type-length value (TLV) may be defined*). The motivation for this would have been to a possible fault to be avoided by the protection LSP. (*Jain, See paragraph 0097, lines 1-24 a new type-length value (TLV) may be define*d)

12. With respect to the claim 9, Lewis, Jain and Owens further teach if the protection mode for the work LSPs is 1+1 mode, the binding information comprises the work LSP identifier, LSP type, and the protection mode (Jain, See paragraph 0106, lines 1-15 the protection provided may be 1:1, 1:n, 1+1, ring, or fast re-route and See paragraph 0021, lines 14-20 a label-switched path that uses a resource identified by the corresponding point of failure); if the protection mode for the work LSPs is 1:1, the binding information comprises the work LSP identifier, LSP type, the protection mode and selection mode of the return LSP in the 1:1 protection mode (*Jain, See paragraph 0106, lines 1-15 the protection provided may be 1:1, 1:n, 1+1, ring, or fast re-route and See paragraph 0021, lines 14-20 a label-switched path that uses a resource identified by the corresponding point of failure*). The motivation that was utilized in claim 3, applies equally as well to claim 9.

13. With respect to the claim 10, Lewis, Jain and Owens further teach after the PML router receives the notification message, if it is determined that the

protection is in the 1:1 mode and it is chosen to create the return LSP dynamically via signaling, further comprising (*Jain, See paragraph 0106, lines 1-15 the protection provided may be 1:1, 1:n, 1+1, ring, or fast re-route and See paragraph 0050, lines 1-6 signal integrity verification*):

the PML router transmitting to the PSL router a third message of requesting for creating the return LSP, with the binding information included in the third message (*Jain, See paragraph 0013, lines 1-7 the particular router is using to send data, e.g., those resources being used by label-switched paths (LSPs) set up by that router and See paragraph 0016, lines 1-8 The label used for a fault notification may be referred to as a "fault information label" (FIL).*);

the PSL router assigning a label for the return LSP according to the third message, and returning a fourth message which comprises the binding information (Jain, See paragraph 0013, lines 1-7 the particular router is using to send data, e.g., those resources being used by label-switched paths (LSPs) set up by that router and See paragraph 0016, lines 1-8 The label used for a fault notification may be referred to as a "fault information label" (FIL).);

the PML router binding the work LSP and the return LSP based on the binding information of the fourth message, and transmitting to the PSL router a notification message which comprises the binding information (*Jain, See paragraph 0013, lines 1-7 the particular router is using to send data, e.g., those resources being used by label-switched paths (LSPs) set up by that router and See paragraph 0016, lines 1-8 The notification may include the SRLG that corresponds to the particular failure that occurred.*);

the PSL router binding the work LSP and the return LSP based on the binding information of the notification message (*Jain, See paragraph 0013, lines 1-7 the particular router is using to send data, e.g., those resources being used by label-switched paths (LSPs) set up by that router and See paragraph 0016, lines 1-8 The notification may include the SRLG that corresponds to the particular failure that occurred.*). The motivation that was utilized in claim 3, applies equally as well to claim 10.

14. With respect to the claim 11, Lewis further teach wherein, if Resource Reservation Protocol (RSVP) is used to create the LSP, the first message and the third message are path messages in the RSVP, and the second message and the fourth message are Resv messages in the RSVP, and the notification message is Reservation Configuration (ResvConf) message in the RSVP (*See paragraph 0008, lines 1-9 the first and second LSP setup request messages are first and second RSVP PATH messages*).

15. With respect to the claim 12, Lewis further teach comprising: extending a binding object in the RSVP, and extending the Path message, Resv message and ResvConf message to comprise information of the binding object to implement the binding of the work LSP and the protection LSP (*See paragraph 0008, lines 1-9 the first and second LSP setup request messages are first and second RSVP PATH messages*).

16. With respect to the claim 13, Lewis further teach wherein, if the LDP or the CR-LDP is used to create the LSP, the first message and the third message are the Label Request messages of the LDP or CR-LDP, and the

second message and the fourth message are the Label mapping messages of the LDP or the CR-LDP, and the notification message is a notification message in the LDP or the CR- LDP (*See paragraph 0065, lines 1-12 LDP, for example, may be used).*

17. With respect to the claim 14, Lewis, Jain and Owens further teach comprising: extending the binding Type Length Value (TLV) in the LDP or the CR-LDP, and adding the binding TLV to the Label Request message, Label mapping message and notification message to implement the binding of the work LSP and the protection LSP (*Jain, See paragraph 0097, lines 1-24 a new type-length value (TLV) may be defined*). The motivation that was utilized in claim 8, applies equally as well to claim 14.

18. With respect to the claim 15, Lewis, Jain and Owens further teach wherein data is transmitted via the work LSP and protection LSP simultaneously from PSL to PML, the PML receives the data from the work LSP in normal conditions, if there is a failure in the work LSP, the PML receives data from the protection LSP (Owens*, See column 14, lines 10-12 Upon the establishment of the working and protection paths and See column 3, lines 44-55 This path is known in the art as the working or primary path through the network and See column 4, lines 55-65 In the event of a pathway failure causing downstream data to be lost at a downstream switch, such as by either a switch failure or a link failure,*). The motivation for this would have been to re-route data traffic through the protection path so as to have the data for the endpoint switch no. 7 delivered

as quickly as possible to the endpoint at switch no. 7(*See column 4, lines 55-65 In*).

19. With respect to the claim 16, Lewis, Jain and Owens further teach wherein the binding occurs during creation of the protection LSP (*See Owens, column 11, lines 1-12 for maintaining a binding between outgoing labels specifying the working path and the protection/recovery path (protection LSP).*

20. With respect to the claim 17, Lewis, Jain and Owens further teach wherein at least one node in the protection LSP is not part of the work LSP (*See Owens, column 4, lines 17-25 A protection path for the portion of the working path that runs through switches 2, 3, 4 and 6 is the path designated by links)*

21. With respect to the claim 18, Lewis, Jain and Owens further teach wherein data is transmitted via the work LSP and protection LSP simultaneously from PSL to PML, the PML receives the data from the work LSP in normal conditions, if there is a failure in the work LSP, the PML receives data from the protection LSP (Owens*, See column 14, lines 10-12 Upon the establishment of the working and protection paths and See column 3, lines 44-55 This path is known in the art as the working or primary path through the network and See column 4, lines 55-65 In the event of a pathway failure causing downstream data to be lost at a downstream switch, such as by either a switch failure or a link failure,*). The motivation for this would have been to re-route data traffic through the protection path so as to have the data for the endpoint switch no. 7 delivered as quickly as possible to the endpoint at switch no. 7(*See Owen, column 4, lines 55-65*).

22. With respect to the claim 19, Lewis, Jain and Owens further teach if the protection mode for the work LSPs is 1:1, the binding information comprises the work LSP identifier (*See Owens, column 11, lines 1-12 A Protection Domain Path is established by the identification of a protection switch (work LSP) or node and an end point switch or node in the MPLS network.)*, LSP type (*See Owens, column 6, lines 33-43 the format of a liveness message will depend upon the type of switching systems (LSP) used in the network)*, the protection mode (*See Owens, column 11, lines 1-12 for maintaining a binding between outgoing labels (two LSPs) specifying the working path (work LSP) and the protection/recovery path (protection mode)* and selection mode of the return LSP in the 1:1 protection mode, and wherein the PSL and PML me label edge routers (*See Lewis, paragraph 0003, lines 1-8 An MPLS Label Switched Path (LSP) is a uni-directional "tunnel" originating at one label edge router (LER),*).

Conclusion

23. **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FARRUKH HUSSAIN whose telephone number is (571)270-5652. The examiner can normally be reached on Monday-Thursday, Alt. Friday, 7:30 A.M-5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/F. H./
Examiner, Art Unit 2444
09/30/2010

/William C. Vaughn, Jr./
Supervisory Patent Examiner, Art Unit 2444